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SUBJECT—

TITLE

FOURTEENTH ANNUAL SURVEY OF THE
COEUR D'ALENE NATIONAL FOREST
1942

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FOURTEENTH ANNUAL SURVEY OF THE COEUR D'ALENE NATIONAL FOREST 1942

During the past season a survey of all the most important areas of white pine on the Coeur d'Alene Forest was made to determine the extent of reinfestation by the mountain pine beetle. Included are all of those areas in which control measures have been practiced during any of the past several years and areas that are surveyed biennially.

Although the survey was made with only a few men, a fair coverage of the units was accomplished. All units where control measures have, in recent years, been practiced were surveyed on an average of 3.8 percent. The average coverage of the 52,350 acres was 2.5 percent.

A list of the areas surveyed, acres of area, and a summary of the data taken follow:

Unit	Acres	Infested trees per acre	Infested trees on unit	% of stand killed
		Annual		
Taylors	2,800	.18	504	.6
Forks-Cabin	5,440	.20	1,088	.4
West Fork	3,960	.11	435	.4
Clay Creek	2,320	.17	394	.3
Sissons	4,700	.50	2,350	1.6
N. Yellow Dog	840	.22	184	.8
Downey Creek	4,160	.43	1,789	.7
Yellow Dog River	2,140	.66	1,412	1.4
Yellow Dog Creek	4,120	.11	453	.2
		Biennial		
Rock City	1,600	0	0	0
Miner Creek	1,550	.10	155	.7
West Eagle Creek	3,540	.06	212	.5
Upper Cougar	3,700	.04	148	.2
Lower Cougar	3,600	.06	216	.6
Laverne Creek	2,560	.14	358	.4
Deception Creek	5,320	0	0	0
	52,350			

SUMMARY OF UNITS

Taylors Unit — 2,800 acres

Acres strip	Green stand	Attacks
28	851	5

Attacks per acre	.18
Percent of stand killed	.6
Infested trees on unit	504

The Omaha drainage of the Taylors unit is the only place where an abnormal infestation was found. On an area of about 100 acres, .42 infested trees per acre were recorded. Well over 50 percent of the white pine on the steep southern slopes has been killed during the past decade in this drainage. The dead trees include nearly all of the larger trees and almost all of the very small ones, while the intermediate sizes are not so much affected. The current infestation of .42 per acre along the northern side of the creek is more or less of a secondary nature. The area does not seem to be suited to the growing of mature white pine.

Forks-Cabin Unit — 5,440 acres

Acres strip	Green stand	Attacks
130	6,355	26

Attacks per acre	.20
Percent of stand killed	.4
Infested trees on unit	1,088

The infestation in the Forks-Cabin unit is virtually the same as in 1941 in regards to infested trees per acre. However, the trees attacked in 1942 do not seem to be as heavily hit, nor are they found in groups of any appreciable size. A large number of trees attacked on one side and unsuccessful attacks were seen. Although the infestation still has serious potentials, there seems to be no immediate threat of a sudden build-up.

West Fork of Steamboat Creek Unit — 3,960 acres

Acres strip	Green stand	Attacks
65	1,766	7

Attacks per acre	.11
Percent of stand killed	.4
Infested trees on unit	435

No infested trees were seen in the Comfy Creek drainage, but several were recorded along the southern exposure north of trail 31 in section 31. Some of these trees were attacked as a result of being hit and damaged by windfalls.

Clay Creek Unit 2,320 acres

Acres strip	Green stand	Attacks
63	3,105	11

Attacks per acre .17
Percent of stand killed .3
Infested trees on unit 394

No serious infestation was found in the Clay Creek unit. Although several infested trees were examined, they were not heavily attacked. No groups of more than two trees were found and very few infested windfalls were seen.

The sample strips were largely confined to areas that have, in the past, been the most heavily infested, and the data obtained can therefore be considered somewhat inflated.

Sissons Unit 4,700 acres

Acres strip	Green stand	Attacks
198	5,811	98

Attacks per acre .50
Percent of stand killed 1.6
Infested trees on unit 2,350

In the Sissons unit the infestation was .51 infested trees per acre in 1941 and it is practically the same again this year. However, there is a difference in the character of the 1942 infestation in that one-half of all the trees recorded on 198 acres of sample strip were windfalls. Of the standing infested trees examined, 57 percent were heavily attacked, 48 percent were lightly attacked, and 12 percent were medium or average. While not confined to any particular area on the unit, the infestation is somewhat heavier east and north of Sissons bridge in section 30. This section and part of section 25 west of the bridge are where most of the infested windfalls were found. Infested windfalls were also found along the exposed tops of nearly all ridges.

North Yellow Dog Unit 840 acres

Acres strip	Green stand	Attacks
78	2,039	17

Attacks per acre .22
Percent of stand killed .8
Infested trees on unit 184

An increase has occurred in the number of infested trees in this area during the current season. Attacked trees occur as singles and small groups and are well scattered over the unit. Most of the infested trees are heavily attacked and there are not many infested windfalls.

Downey Creek Unit 4,160 acres

Acres strip	Green stand	Attacks
147	8,525	63

Attacks per acre .43
Percent of stand killed .7
Infested trees on unit 1789

While the infestation in the stands of the Downey Creek drainage decreased to some extent during the current season, infested trees were found throughout the Downey Creek drainage. In some localities the attacked trees were found to be more numerous, especially on the drier slopes. There are several of these dry areas: The eastern slope in the North Grizzly Creek drainage, the eastern slope in section 22 below the forks of Downey and North Grizzly Creek, the ridge point and eastern slope in the lower East Fork of Downey, and several south-sloping areas in sections 28, 21, and 22.

A rough estimate of brood potentials of 54 infested trees examined showed 43 percent decreasing, 28 percent increasing, and 29 percent average. About the only safe conclusion that may be drawn from such an estimate, however, is that the infestation does not have a very serious potential.

On the dry southern and eastern slopes the infested trees are not often found in groups, but as numerous individuals which are scattered throughout the stand. On better sites such as northern exposures and sheltered slopes groups are occasionally found.

Yellow Dog River Unit 2,140 acres

Acres strip	Green stand	Attacks
116	5,164	76

Attacks per acre .66
Percent of stand killed 1.4
Infested trees on unit 1412

The infested trees per acre in this unit are virtually the same as in 1941. Of 76 infested trees examined 34 were heavily hit and could be considered as having an increasing potential, 27 were average attacks which will probably produce a one to one ratio, and 15 were lightly attacked trees or trees of below-average size which are considered as having a decreasing potential. The attacked trees are found as small groups of 2 or 3, as singles, and a very few infested windfalls. A small drainage just west of Yellow Dog Creek, called Beetle Creek, is the most heavily infested part of the unit. In this drainage the infestation is slightly over a tree per acre and the trees are heavily attacked.

Yellow Dog Creek Unit 4,120 acres

Acres strip	Green stand	Attacks
170	9,391	19

Attacks per acre .11
Percent of stand killed .2
Infested trees on unit 453

Less than half the infested trees examined in this unit were heavily attacked and 10 percent were windfalls. The infestation is not considered serious and may decline further next season.

Rock City Unit 1,600 acres

Acres strip	Green stand	Attacks
49	1,705	0

Although a thorough coverage was made in the Rock City unit, no infested trees were recorded.

Miner Creek Unit 1,550 acres

Acres strip	Green stand	Attacks
19	303	2

Attacks per acre .10
Percent of stand killed .7
Infested trees on unit 155

In this unit the timber can be considered as nonsusceptible to an insect infestation of any serious proportions because it is largely composed of old mature white pine and hemlock.

Only two infested trees were seen - both were near a trail at the starting point of the strip.

West Eagle Creek Unit 3,540 acres

Acres strip	Green stand	Attacks
65	754	4

Attacks per acre .06
Percent of stand killed .5
Infested trees on unit 212

Sample strips were run in the more important areas of the East Fork of Eagle Creek and a general check was made along the road.

Infested pine were found only in Cabin Creek and in Pennsylvania Gulch, where logging operations have been in progress for several years. During these operations the cut was mostly in Douglas fir for mining timbers, although some pine was cut in Cabin Creek. Logging operations injured a great many white pine and exposed nearly all the remaining trees to the sun. The drainages are of steep southern exposures and many of the trees suffered sun-scald. Insects have killed quite a number of these trees, but the attacks are decidedly secondary in nature. There is no serious infestation in either drainage at present.

Upper Cougar Creek Unit 3,700 acres

Acres strip	Green stand	Attacks
74	1,593	3

Attacks per acre .04
Percent of stand killed .2
Infested trees on unit 148

Very few infested trees were recorded in this unit. There is evidently a very low insect population in the area because 1942 windfalls were examined which showed no signs of insect attack.

Lower Cougar Unit 3,600 acres

Acres strip	Green stand	Attacks
36	348	2

Infested trees per acre .06
Percent of stand killed .6
Infested trees on unit 216

The infestation in the Lower Cougar Creek drainage seems normal. Only two small infested trees were found on the sample strips run and they were both lightly infested.

Laverne Creek Unit 2,560

Acres strip	Green stand	Attacks
36	1,165	5

Infested trees per acre .14
Percent of stand killed .4
Infested trees on unit 358

One small area of infestation was found in the Laverne Creek drainage, where a group of 8 infested trees, of which 2 occurred on the

sample strip, were found. These were all heavily attacked and will probably produce an increasing brood. The timber in this drainage is spotty and is to be found largely in a strip about 20 chains wide along the north side of the creek between the south section line of section 5 and the west section line of section 10, a distance of about two miles. It is in this area of relatively young timber that most of the past infestation has occurred.

Deception Creek Unit 5,320 acres

Acres strip	Green stand	Attacks
25	1,000+	0

No infested trees were found in the Deception Creek drainage. White pine in this area looks healthy and vigorous.

CONCLUSIONS

A marked decrease in the number of trees infested by the mountain pine beetle has occurred on most of the areas surveyed. On all of the areas covered by annual surveys the decrease was 25.7 percent. On the areas surveyed biennially the decrease since 1940 is 53 percent.

The following table will give a comparison of the number of infested trees per acre for each unit:

Unit	Infested trees per acre 1941	1942
	Annual	
Taylors	.35	.18
Forks-Cabin	.19	.20
West Fork	.05	.11
Clay Creek	.28	.17
Sissons	.51	.50
N. Yellow Dog	.06	.22
Downey Creek	.52	.43
Yellow Dog River	.62	.66
Yellow Dog Creek	.29	.11
	Biennial	
	1940	1942
Rock City	.02	0
Miner Creek	No data	.10
West Eagle Creek	.04	.06
Upper Cougar	.04	.04
Lower Cougar	.20	.06
Laverne Creek	.08	.14
Deception Creek	.15	0

The only appreciable increase shown in the preceding table occurred in the small North Yellow Dog unit. Fluctuations in this area have been common in the past. Marked increases or decreases have occurred in a single season the cause of which is unaccountable.

Many trees were blown over throughout the forest during the early part of the year. The largest number of these occurred in an area about six miles wide extending in a northeasterly direction between the Sissons bridge and the mouth of Downey Creek. A part of the Downey Creek drainage and nearly all of the Sissons unit are in the strip. Within the strip of blowdown, Dry Creek on the Sissons unit has the greatest number of felled trees. Most of the windthrown trees are white fir, but white pine and Douglas fir are down in large numbers also. What effect the windfalls will have on the subsequent infestation is hard to predict. Not all of the windfalls are infested, but most are and it is probable that they will produce somewhat less brood than infested standing trees because they are not, as a rule, as heavily attacked. If such is the case, the emerging brood will attack fewer trees. These areas should be thoroughly checked again in 1943.